



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

For the week ending November 22, 2014 - Week 47

All data presented in this report are provisional and may change as additional reports are received



Quick Stats

Percent of outpatient visits for ILI ¹	0.33 % (baseline 1.7%)
Percent of influenza rapid test positive	8.1% (37/529)
Percent of RSV rapid tests positive	8.1% (10/124)
Percent school absence due to illness ²	2.19%
Number of schools with ≥10% absence due to illness	3
Influenza-associated hospitalizations ³	5/4,697 inpatients surveyed
Influenza-associated pediatric mortality	0

¹ ILI: Influenza-like Illness is defined as a fever of ≥100° F as well as cough and/or sore throat.

² Percent school absence due to illness are reported through a weekly survey of Iowa sentinel schools

³ Hospitalizations due to influenza are voluntarily reported through a weekly survey of Iowa sentinel hospitals

Iowa Influenza Geographic Spread²

No Activity
Sporadic
Local
Regional
Widespread

²This is based on CDC's activity estimates definition

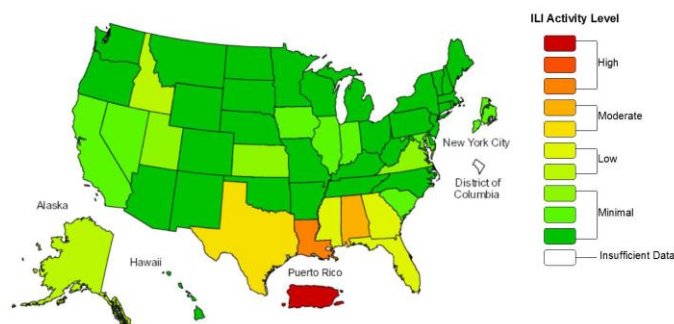
www.cdc.gov/flu/weekly/overview.htm

Iowa statewide activity summary:

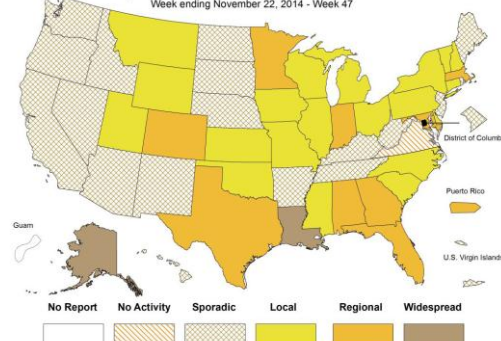
Influenza activity in Iowa is slowly increasing. IDPH is currently investigating three influenza long-term care outbreaks and three schools reported 10 percent or greater absenteeism due to illness with at least one school experiencing flu-like symptoms. For this reporting week, the State Hygienic Laboratory confirmed nine Flu A (subtype pending) cases. The proportion of outpatient visits due to influenza-like illness (ILI) increased to 0.22 percent which is well below the regional baseline. Seven influenza-associated hospitalizations were reported from sentinel hospitals. In addition, 14 cases of adenovirus, eight cases of parainfluenza virus type 2, four cases of parainfluenza virus type 3, two cases of parainfluenza virus type 4, two cases of RSV, and 42 cases of rhinovirus/enterovirus were reported to IDPH.

National activity summary - (CDC):

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2014-15 Influenza Season Week 47 ending Nov 22, 2014



Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*
Week ending November 22, 2014 - Week 47



Synopsis: During week 47 (November 16-22, 2014), influenza activity increased slightly in the United States.

Viral Surveillance: Of 9,710 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 47, 1,228 (12.6%) were positive for influenza.

Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.

Influenza-associated Pediatric Deaths: Four influenza-associated pediatric deaths were reported.

Influenza-associated Hospitalizations: A cumulative rate for the season of 1.1 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.

Outpatient Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) was 2.0%, which is at the national baseline. Four of 10 regions reported ILI at or above region-specific baseline levels. Puerto Rico and one state experienced high ILI activity; two states experienced moderate ILI activity; five states experienced low ILI activity; New York City and 42 states experienced minimal ILI activity; and the District of Columbia had insufficient data.

Geographic Spread of Influenza: The geographic spread of influenza in two states was reported as widespread; Puerto Rico and nine states reported regional activity; 20 states reported local activity; the District of Columbia, the U.S. Virgin Islands, and 17 states reported sporadic activity; two states reported no influenza activity; and Guam did not report.

Detailed information can be found online at www.cdc.gov/flu/weekly/

International activity summary - (WHO):

Globally, influenza activity remained low, with the exception of some Pacific Islands. Detailed information can be found online at www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

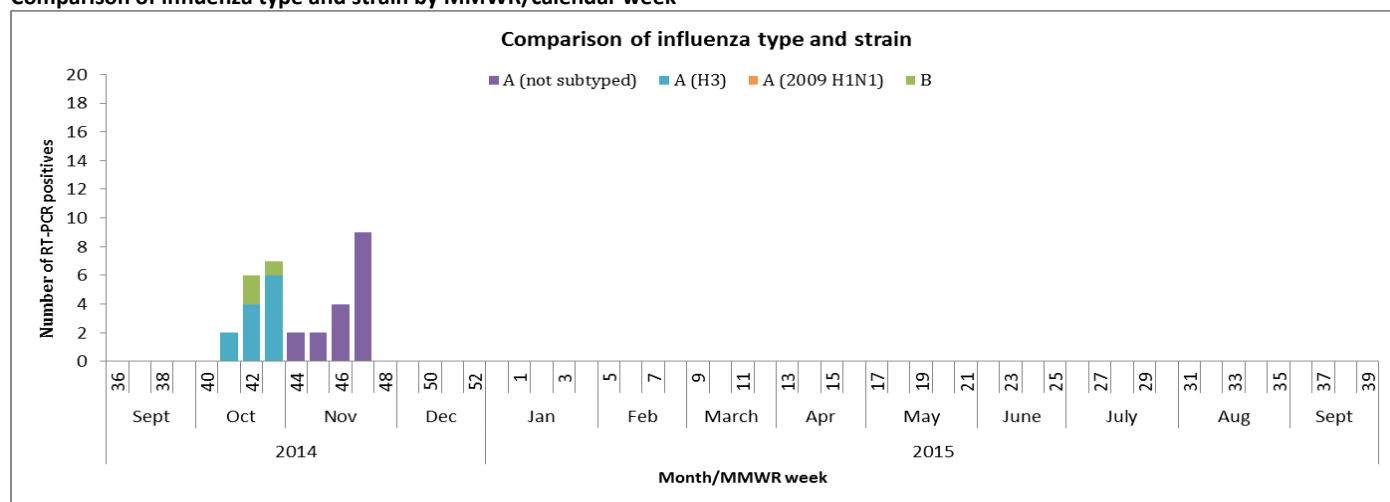
Laboratory surveillance program:

The State Hygienic Laboratory (SHL) is the primary lab for influenza testing and reporting in Iowa. SHL reports the number of tests performed and the type and strain of positive tests to the influenza surveillance network several times every week. In addition, SHL surveys clinical and reference labs for the number of rapid-antigen tests performed and number positive weekly. This report also includes the positive non-influenza virus tests reported from SHL, the Dunes Medical Laboratories at Mercy Medical Center in Sioux City, and Iowa Methodist Medical Center in Des Moines.

Age Group	CURRENT WEEK							YEAR TO DATE (9/1/14 – PRESENT WEEK)					
	Flu A				Flu B	Equiv/Indeterminate	Neg	Flu A				Flu B	Neg
	A (2009 H1N1)	A (H3)	A(H3N2) variant	Subtype Pending				A (2009 H1N1)	A (H3)	A(H3N2) variant	Subtype Pending		
0-4	0(0%)	0(0%)	0(0%)	1(11%)	0(0%)	0(0%)	1(10%)	0(0%)	1(8%)	0(0%)	1(6%)	0(0%)	16(10%)
5-17	0(0%)	0(0%)	0(0%)	4(44%)	0(0%)	0(0%)	0(0%)	0(0%)	5(42%)	0(0%)	8(47%)	0(0%)	22(14%)
18-24	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	3(30%)	0(0%)	3(25%)	0(0%)	1(6%)	0(0%)	57(37%)
25-49	0(0%)	0(0%)	0(0%)	3(33%)	0(0%)	0(0%)	1(10%)	0(0%)	0(0%)	0(0%)	6(35%)	0(0%)	28(18%)
50-64	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	0(0%)	1(10%)	0(0%)	3(25%)	0(0%)	0(0%)	3(100%)	14(9%)
>64	0(0%)	0(0%)	0(0%)	1(11%)	0(0%)	0(0%)	4(40%)	0(0%)	0(0%)	0(0%)	1(6%)	0(0%)	18(12%)
Total	0	0	0	9	0	0	10	0	12	0	17	3	155

*Counts of three or less are sometimes suppressed to protect confidentiality. Note that counts may not add up to the total due to missing age information
Only cases of Iowa residents are included

Comparison of influenza type and strain by MMWR/calendar week

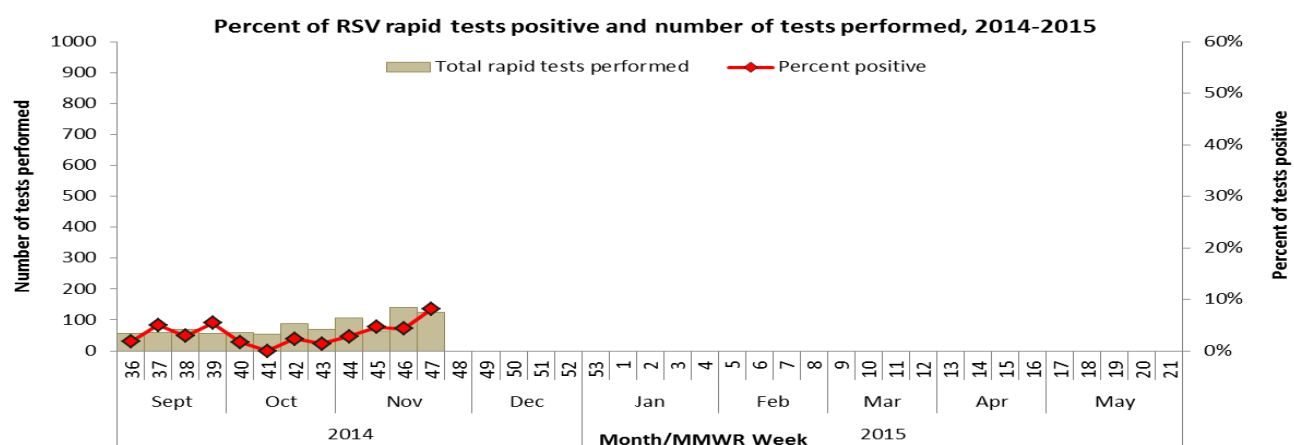
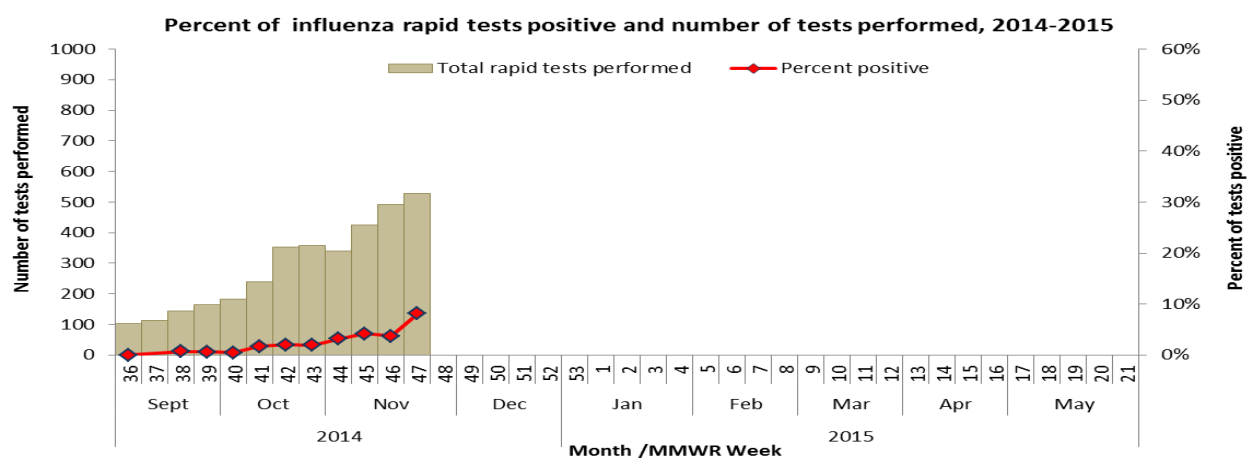


Rapid influenza and RSV test surveillance:

The State Hygienic Laboratory (SHL) runs a weekly web-based survey program where laboratorians report the number of influenza and respiratory syncytial virus (RSV) rapid tests performed and the number of tests positive. This table includes only the number of patients tested for influenza or RSV at laboratory surveillance sites throughout the state. This table does not provide case counts.

REGION*	RAPID ANTIGEN INFLUENZA TESTS					RAPID ANTIGEN RSV TESTS		
	Tested	Flu A	Flu B	Undefined	% Positive	Tested	Positive	% Positive
Region 1	139	17	0	0	12.2	44	5	11.4
Region 2	17	0	0	0	0.0	5	0	0.0
Region 3	76	11	4	0	19.7	18	3	16.7
Region 4	41	3	0	0	7.3	6	0	0.0
Region 5	57	3	0	0	5.3	13	0	0.0
Region 6	199	3	2	0	2.5	38	2	5.3
Total	529	37	6	0	8.1	124	10	8.1

*Region 1- Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster; Region 2- Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright; Region 3- Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury; Region 4- Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union; Region 5- Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne; Region 6- Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott.



Non-influenza respiratory virus:

Table 3: Number of positive results for non-influenza respiratory virus isolated by SHL, Mercy Dunes in Sioux City and Iowa Methodist Medical Center

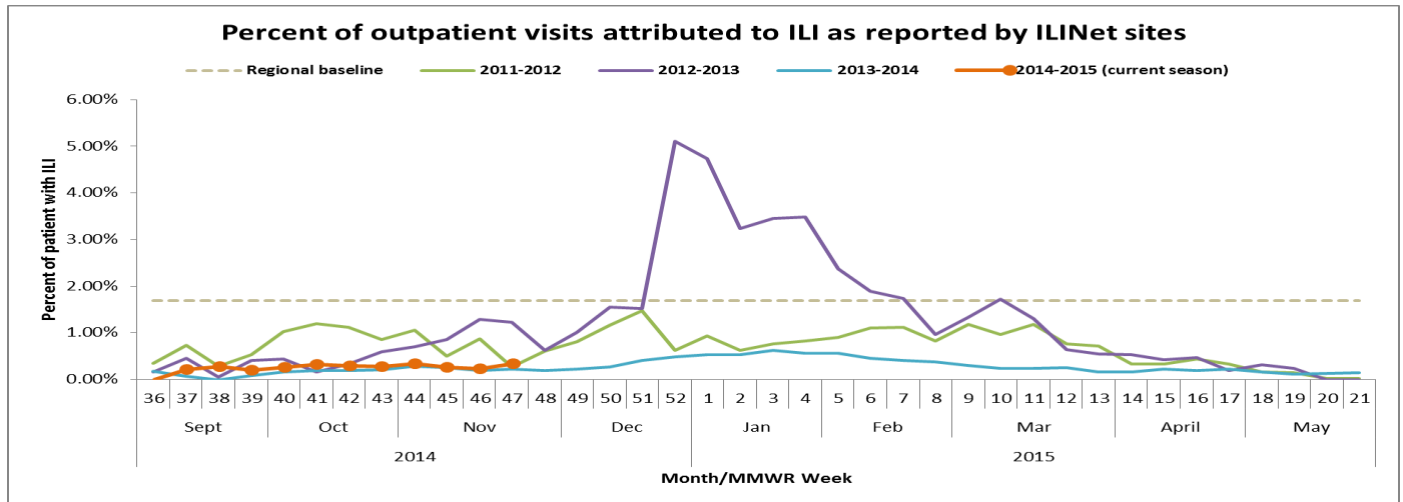
Viruses	CURRENT WEEK	CUMULATIVE (9/1/14 – PRESENT WEEK)
Adenovirus	14	76
Parainfluenza Virus Type 1	0	1
Parainfluenza Virus Type 2	8	48
Parainfluenza Virus Type 3	4	9
Parainfluenza Virus Type 4	2	6
Rhinovirus/Enterovirus	42	387
Respiratory syncytial virus (RSV)	2	4
Human metapneumovirus (hMPV)	0	3
Total	72	534

Outpatient health care provider surveillance program (ILINet):

Outpatient health care providers who participate in the ILINet (a national influenza surveillance program) report the number of patients seen with influenza-like illness and the total number of patient visits each week. This system is a key part of Iowa's influenza surveillance. Iowa health care providers interested in joining this surveillance program should contact Kemi Oni at 515-725-2136 or oluwakemi.oni@idph.iowa.gov for more information.

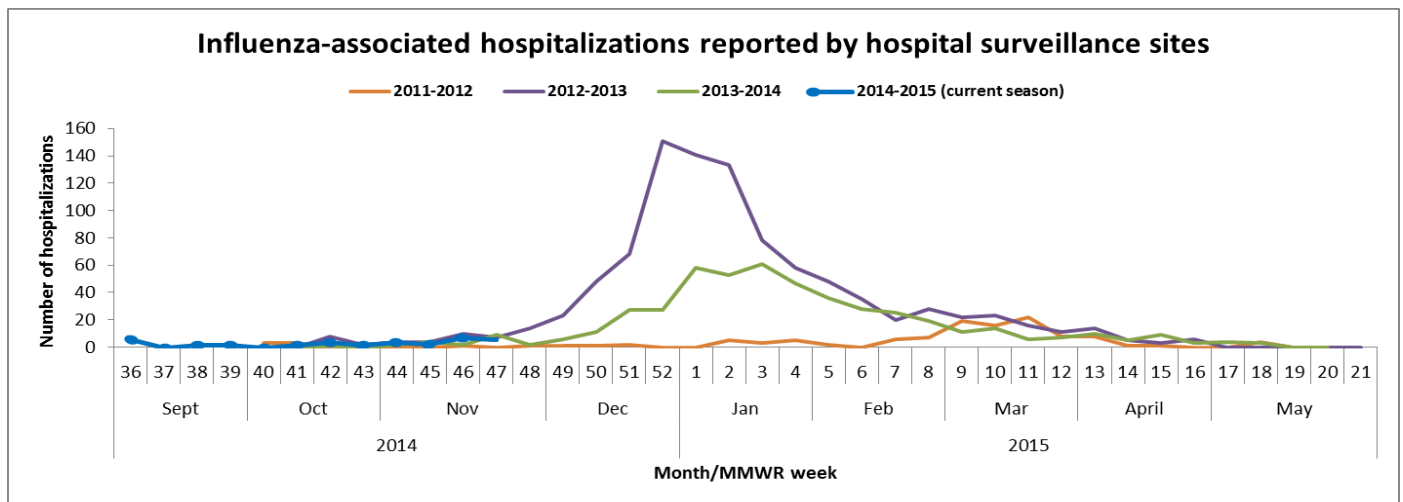
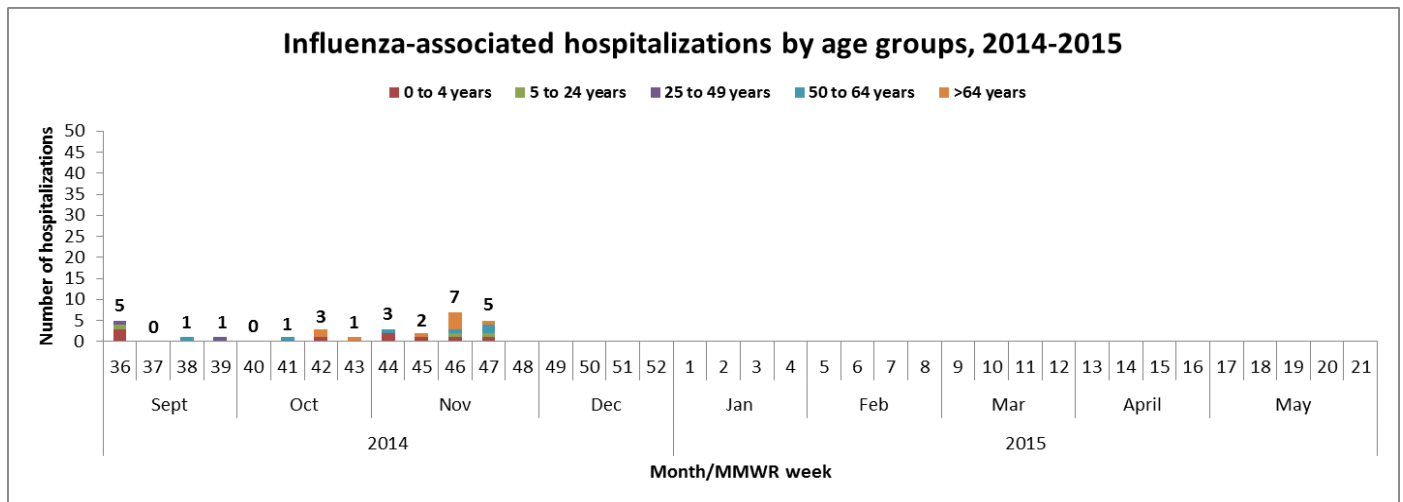
Table 4: Outpatient visits for influenza-like illness (ILI) – past 3 weeks

Week	%ILI	Total ILI	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age >64
Week 45, ending Nov 8	0.25	83	17	49	12	2	3
Week 46, ending Nov 15	0.22	74	13	43	14	3	1
Week 47, ending Nov 22	0.33	109	25	63	14	5	2



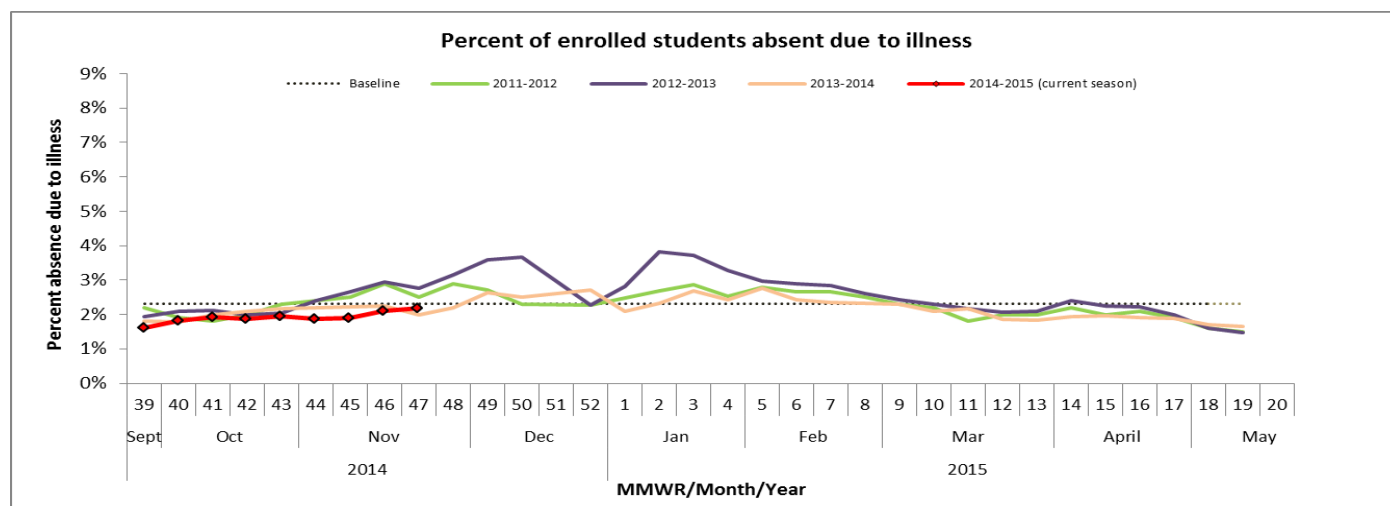
Influenza-associated hospitalizations:

Sentinel hospitals that participate in IISN voluntarily track and report the number of influenza-associated hospitalizations and the total number of inpatients each week.



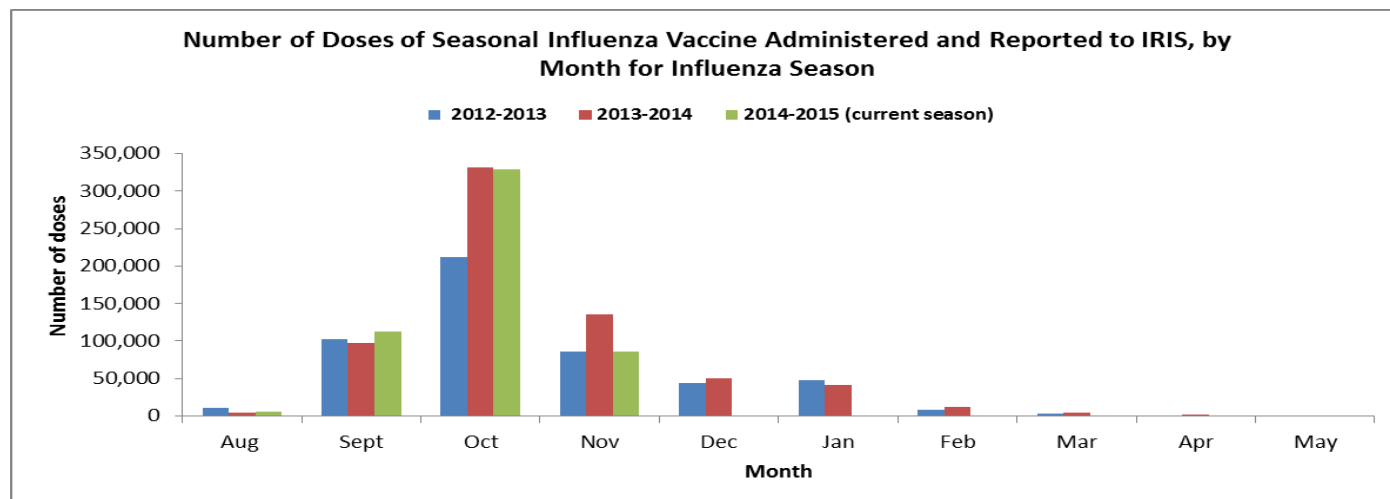
School surveillance program:

Sentinel schools that participate in IISN voluntarily track and report absence due to all illness (including non-influenza illnesses) and the total enrollment each week.



Seasonal influenza vaccination:

Seasonal influenza vaccination data in Iowa is based on doses reported to the Iowa Immunization Registry Information System (IRIS). IRIS is a confidential, computerized, population-based system that tracks immunization for children, adolescents and adults who are seen in a variety of public and private healthcare provider sites throughout the state of Iowa. For more information on the immunization data, contact Kim Tichy, IRIS coordinator at 515-281-4288 or kimberly.tichy@idph.iowa.gov



Note: The data for the 2014-2015 season is only up to the current week and there is a lag between the vaccine administration date and the date reported to the IRIS. The current season's data will be adjusted as additional data is received.

Other resources:

Vaccine:

Influenza vaccine recommendation: <http://www.idph.state.ia.us/ImmTB/Immunization.aspx?prog=Imm&pg=Flu>

CDC vaccine information: <http://www.cdc.gov/flu/faq/flu-vaccine-types.htm>

Vaccine finder: <http://vaccinefinder.org/>

Neighboring states' influenza information:

Illinois: <http://www.idph.state.il.us/flu/surveillance.htm>

Minnesota: <http://www.health.state.mn.us/divs/idepc/diseases/flu/stats/index.html>

Missouri: <http://health.mo.gov/living/healthcondiseases/communicable/influenza/reports.php>

South Dakota: <http://doh.sd.gov/diseases/infectious/flu/>

Wisconsin: www.dhs.wisconsin.gov/communicable/influenza/surveillance.htm

Google Flu Trends: <http://www.google.org/flutrends/us/#US-IA>